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PATENT  
ATTORNEY DOCKET NO. 47236-0011

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Misa OCHIAI et al. ) Confirmation No.: 1234  
Application No.: 10/594,772 ) Group Art Unit: Unassigned  
Filed: September 29, 2006 ) Examiner: Unassigned  
For: BREEDING METHOD OF LIPID PRODUCING )  
FUNGI AND USE OF SUCH A METHOD )

Commissioner for Patents  
U.S. Patent and Trademark Office

Customer Window Mail Stop: ☐ New Application ☒ Amendment ☐ AF ☐ Issue  
Fee  
Alexandria, VA 22314

Sir:

**INFORMATION DISCLOSURE STATEMENT (IDS)**

☒ **Under 37 C.F.R. § 1.97(b):** Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant brings to the attention of the Examiner the documents listed on the attached PTO Form 1449. To the undersigned's knowledge, this IDS is being filed before the mailing date of a first Office Action on the merits, before the mailing date of a first Office Action on the merits after filing an RCE under § 1.114, or within three months of the application filing date.

☐ **Under 37 C.F.R. § 1.97(c):** Pursuant to 37 C.F.R. §§ 1.56 and 1.97(c), Applicant brings to the attention of the Examiner the documents listed on the attached PTO Form 1449. This IDS is being filed after the events recited in § 1.97(b) but, to the undersigned's knowledge, before the mailing date of a Final Office Action, a Notice of Allowance, or another action that closes prosecution in the application.

☐ The fee of \$180.00 set forth in § 1.17(p) is included herein; or

☐ Applicant submits that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS.

☐ **Under 37 C.F.R. § 1.97(d):** Pursuant to 37 C.F.R. §§ 1.56 and 1.97(d), Applicant brings to the attention of the Examiner the documents listed on the attached PTO Form 1449. This IDS is being filed after the events recited in § 1.97(c) but before payment of the issue fee.

☐ The fee of \$180.00 set forth in § 1.17(p) is included herein; and

☐ Applicant submits that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS.

☐ **Under 37 C.F.R. § 1.97(i):** Pursuant to 37 C.F.R. §§ 1.56 and 1.97(i), Applicant brings to the attention of the Examiner the documents listed on the attached PTO Form 1449. This IDS is being filed after the events recited in § 1.97(d). Applicant requests that the IDS be placed in the file.

☐ A search report or other listing of documents from a counterpart, related, or other application dated \_\_\_\_\_ and having documents cited thereon is attached for the Examiner's consideration. Any of these documents not previously cited, and any additional documents are listed on the PTO Form 1449.

☒ Applicant respectfully requests that the Examiner consider the listed documents and evidence that consideration by making appropriate notations on the attached form. As for any document listed on the accompanying PTO-1449 that is in a language other than English, relevance can be understood from an enclosed English abstract or at least partial translation or from mention in the specification or in a search report for a corresponding application.

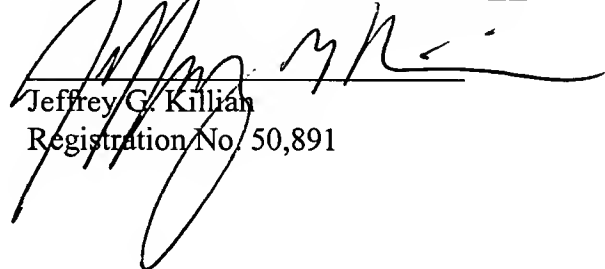
This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that any of the listed documents are material or constitute "prior art." If it should be determined that any of the listed documents do not constitute "prior art" under United States law, Applicant reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should any of the documents be applied against the claims of the present application.

Except for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this Application, including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required and including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a CONSTRUCTIVE PETITION FOR EXTENSION OF TIME in accordance with 37 C.F.R. § 1.136(a)(3).

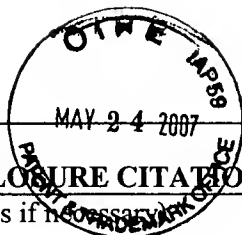
Respectfully submitted,

**DRINKER, BIDDLE & REATH LLP**

  
Jeffrey G. Killian  
Registration No. 50,891

Dated: May 24, 2007

**CUSTOMER NO. 055694**  
**DRINKER, BIDDLE & REATH LLP**  
1500 K Street, N.W., Suite 1100  
Washington, D.C. 20005-1209  
Tel: 202.842.8800; Fax: 202.842.8465



<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)				Attorney Docket No.: 47236-0011		Serial No.: 10/594,772	
<b>PTO Form 1449</b>				Applicants Misa OCHIAI et al.		Page 1 of 2	
				Filing Date: September 26, 2006		Group Art Unit: Unassigned	
<b>U.S. PATENT DOCUMENTS</b>							
*Examiner Initial		Document Number	Date	Name	Class	Sub Class	Filing Date
/R.S./		5,204,250	Apr. 20, 1993	Shinmen et al.			
<b>FOREIGN PATENT DOCUMENTS</b>							
		Document Number	Date	Country	Class	Sub Class	<b>Translation</b> YES NO
/R.S./		63-044891	Feb. 25, 1988	JP			Abstract
<b>OTHER DOCUMENTS</b>							
(Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date; page(s), volume-issue number(s), publisher, city and/or country where published.)							
/R.S./		S. SHIMIZU et al., "Selective Production of Polyunsaturated Fatty Acids by the Fungus <i>Mortierella alpine</i> 1 S-4 and Its Mutants" Oil Chemistry, Vol. 42 No. 4, (1993), p. 254-264, partial English translation.					
/R.S./		M. HELENA P. FUNGARO et al., "Transformation of <i>Aspergillus nidulans</i> by microprojectile bombardment on intact conidia", FEMS Microbiol. Lett., 125 (1995), p. 293-298.					
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/R.S./		DANIELE ARMALEO et al., "Biolistic nuclear transformation of <i>Saccharomyces cerevisiae</i> and other fungi", Curr. Genet., 17 (1990), p. 97-103.					
/R.S./		DONALD A. MACKENZIE et al., "Isolation and Use of a Homologous Histone H4 Promoter and a Ribosomal DNA Region in a Transformation Vector for the Oil-Producing Fungus <i>Mortierella alpine</i> ", Appl. and Environ. Microbiol., Vol. 66 No. 11, Nov. 2000, p4655-4661.					
/R.S./		CARLO COGONI et al., "Transgene silencing of the al-1 gene in vegetative cells of <i>Neurospora</i> is mediated by a cytoplasmic effector and does not depend on DNA-DNA interactions or DNA methylation", EMBO Journal, Vol. 15. No. 12, 1996, p. 3153-3163.					
/R.S./		MICHAEL J. JAMES et al., "Effect of Dietary Supplementation with n-9 Eicosatrienoic Acid on Leukotriene B <sub>4</sub> Synthesis in Rats: A Novel Approach to Inhibition of Eicosanoid Synthesis", J. Exp. Med., Vol. 178, December 1993, p. 2261-2265.					
/R.S./		SAEREE JAREONKITMONGKOL et al., "Production of Dihomo- $\gamma$ -Linolenic Acid by a $\Delta 5$ -Desaturase-Defective Mutant of <i>Mortierella alpina</i> 1S-4", Appl. and Environ. Microbiol., Vol. 58. No. 7, July 1992, p. 2196-2220.					
/R.S./		SAEREE JAREONKITMONGKOL et al., "Fatty acid desaturation-defective mutants of an arachidonic-acid-producing fungus, <i>Mortierella alpine</i> 1S-4, J. Gen. Microbiol., Vol. 138 (1992), p. 997-1002.					
/R.S./		SAEREE JAREONKITMONGKOL et al., "Occurance of two nonmethylene-interrupted $\Delta^5$ polyunsaturated fatty acids in a $\Delta^5$ -desaturase-defective mutant of the fungus <i>Mortierella alpine</i> 1S-4", Biochimica et Biophysica Acta, 1167 (1993). p. 137-141.					
/R.S./		SAEREE JAREONKITMONGKOL et al., "Production of and Eicosapentaenoic Acid-Containing by a $\Delta 12$ Desaturase-Defective Mutant of <i>Mortierella alpine</i> 1S-4", JAOCS., Vol. 70 No. 2, February 1993, p. 119-123.					

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(Use several sheets if necessary)		Applicants Misa OCHIAI et al.	Page 2 of 2
<b>PTO Form 1449</b>		Filing Date: September 26, 2006	Group Art Unit: Unassigned
<b>OTHER DOCUMENTS (cont.)</b>			
(Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)			
/R.S./		JASON R. KENNERDELL et al., "Use of dsRNA-Mediated Genetic Interference to Demonstrated that <i>frizzled</i> and <i>frizzled 2</i> Act in the Wingless Pathway", Cell, Vol. 95 December 1998, p. 1017-1026.	
/R.S./		HUAN NGO et al., "Double-stranded RNA induces mRNA degradation in <i>Trypanosoma brucei</i> ", Proc. Natl. Acad. Sci. USA, Vol. 95, December 1998, p. 14687-14692.	
/R.S./		MICHAEL OELGESCHLAGER et al., "The evolutionarily conserved BMP-binding protein Twisted gastrulation promotes BMP signaling", Nature, Vol. 405, June 15, 2000, p. 757-763.	
/R.S./		ANNA WARGELIUS et al., "Double-Stranded RNA Induces Specific Developmental Defects in Zebrafish Embryos", Biochem. Biophys. Res. Commun. 236, (1993), p. 156-161.	
/R.S./		PETER M. WATERHOUSE et al., "Virus resistance and gene silencing in plants can be induced by simultaneous expression of sense and antisense RNA", Proc. Natl. Acad. Sci. USA, Vol. 95, November 1998, p. 13959-13964.	
/R.S./		FLORENCE WIANNY et al., "Specific interference with gene function by double-stranded RNA in early mouse development", Nat. Cell Biol., Vol. 2, February 2000, p. 70-75.	
Examiner		/Richard Schnizer/	Date Considered 11/17/2008
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			